



**Object position detector.**

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A proximity sensor system includes a sensor matrix array having a characteristic capacitance between horizontal and vertical conductors connected to sensor pads. The capacitance changes as a function of the proximity of an object or objects to the sensor matrix. The change in capacitance of each node in both the X and Y directions of the matrix due to the approach of an object is converted to a set of voltages in the X and Y directions. These voltages are processed by analog circuitry to develop electrical signals representative of the centroid of the profile of the object, i.e., its position in the X and Y dimensions. The profile of position may also be integrated to provide Z-axis (pressure) information.

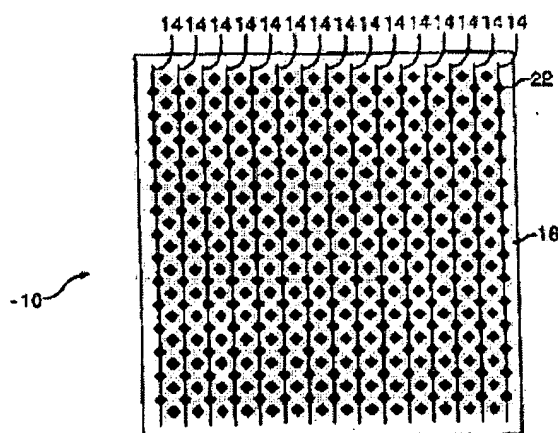


FIG. 1a